Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte NATALIE S. GLANCE
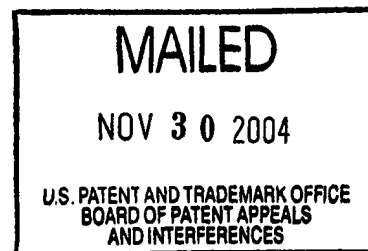
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Appeal No. 2004-2359
Application No. 09/596,070

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ON BRIEF

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Before RUGGIERO, DIXON, and BLANKENSHIP, <u>Administrative Patent Judges</u>.

BLANKENSHIP, <u>Administrative Patent Judge</u>.

<u>DECISION ON APPEAL</u>

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-20, which are all the claims in the application.

We affirm-in-part.

BACKGROUND

The disclosed invention relates to a "recommender" system that generates

implicit ratings of items from monitoring user interactions with the item; i.e., interactions

such as listening to a music track on an MP3 player or reading an electronic book.

Representative claim 1 is reproduced below.

1.   A method for generating recommendations, comprising:

providing an item of a particular type to a handheld device having an
application for engaging in a repetitive activity with items of the particular type,
wherein the repetitive activity comprises displaying or playing items of the
particular type to a user;

generating a history of user interaction with the provided item, wherein a
user interaction comprises an instance of a user causing the application to
display or play the provided item to the user and duration of the display or play,
wherein each user interaction occurs during standalone operation of the
handheld device disconnected from a network:

uploading the history of user interactions to a network recommender;

transforming the history into an implicit rating of the provided item,
wherein the history of user interactions with the provided item may be used to
create more accurate statistical profiles the rating comprising predicted ratings
for a user for a plurality of items not rated by the user, having a measure of
confidence in the prediction and a rationale for the prediction; and

using the implicit rating of the provided item to generate recommendations
of other items of the particular type.

The examiner relies on the following references:

Tuzhilin	6,236,978 B1	May 22, 2001
		(filed Nov. 14, 1997)
Kloba et al. (Kloba)	6,421,717 B1	Jul. 16, 2002
		(filed Apr. 28, 2000)

Claims 1-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kloba and Tuzhilin.

We refer to the Final Rejection (Paper No. 13) and the Examiner's Answer (Paper No. 17) for a statement of the examiner's position and to the Brief (Paper No. 16) for appellant's position with respect to the claims which stand rejected.

OPINION

The examiner offers the teachings of Kloba and Tuzhilin as evidence that the subject matter as a whole of instant claim 1 would have been prima facie obvious to the ordinary artisan at the time of invention. Appellant acknowledges (Brief at 6) that Kloba teaches tracking client behavior offline, such as tracking the number of times that a particular user has viewed a particular page or listened to a particular song, the amount of time a user spends viewing a page, or any other client activity. Appellant adds (id.) that Kloba does not indicate what a provider may do with the tracked information. However, appellant contests the examiner's finding that Tuzhilin suggests transforming the history of user interactions into the implicit rating required by the claim.

Tuzhilin relates to "dynamic" profiling of a user in marketing applications. According to the reference, "static" profiling refers to factual information such as age, sex, and purchasing preferences of the user. "Dynamic" profiling refers to specific rules describing the user's behavior, such as "'whenever user X travels to France, user X often buys expensive wines in Paris'...." Col. 1, II. 27-44. Tuzhilin further teaches that

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rules provided in a dynamic profile are generated for each user. However, because a user may perform only a small number of transactions, the generated rules may be "statistically insignificant, unreliable and irrelevant." Col. 4, II. 32-36. Tuzhilin thus "compresses" individual rules into aggregated rules, and a human expert selects only the rules believed to be pertinent for the user. Id. at II. 57-64. The reference discloses an extensive algorithm (col. 5, I. 1 et seq.) that applies the principles of fuzzy logic to convert large numbers of individual user rules to aggregated rules.

The system of Tuzhilin may include a Personal Shopping Assistant and a Personal Intelligent Digital Assistant (col. 10, I. 46 - col. 11, I. 13) whereby, knowing the purchasing history of the user, a set of products that the user should consider buying is produced (col. 11, II. 42-52).

Appellant contends (Brief at 4) that Tuzhilin does not teach transforming the history into an implicit rating for the provided item, "wherein the history of user interactions with the provided item may be used to create more accurate statistical profiles," as recited in instant claim 1. We observe that the language is permissive in reciting that the history "may be" used, rather than positively reciting that the history "is" used to create more accurate statistical profiles.

In any event, Tuzhilin teaches that user-specific rules are created using methods known to the artisan, such as by use of an induction software system (col. 5, II. 1-15), which in turn are used to generate aggregated rules. The history of user-specific interactions disclosed by Tuzhilin is clearly, in our estimation, the type of information

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that "may be" used to create more accurate statistical profiles in ensuring that proper product recommendations are presented to an individual user. Even if instant claim 1 were to require that the history "is" used to create more accurate statistical profiles, the disclosure at the top of column 5 of the reference would have at least suggested to the artisan that individual, user-specific rules gathered by the Tuzhilin transactional system are a source, and likely the best source, for raw data to be converted into aggregated rules. Further, Tuzhilin describes individual rules from users' dynamic profiles as an input for generating the aggregated rules. Col. 6, l. 35 et seq.

We disagree with appellant's assessment (Brief at 5) that Tuzhilin "teaches away" from appellant's method. The method that is claimed does not distinguish over the reference's additional operations on user-specific rules (i.e., conversion to aggregated rules that are more useful for suggesting particular products). Further, we agree with the examiner that Tuzhilin fairly describes a type of "repetitive user activity." Moreover, Kloba is the reference relied upon for the teaching relating to "repetitive activity." (Answer at 8-11.)

Upon consideration of the rejection and appellant's arguments in the Brief, we are not persuaded that the § 103 rejection of claim 1 is in error. Appellant suggests (Brief at 3) that claims 13 through 20 are separately patentable. Appellant has not, however, provided separate arguments for those claims. Claims 2, 3, 5, and 8-20 thus fall with claim 1. See 37 CFR § 1.192(c)(7). See also In re McDaniel, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) ("If the brief fails to meet either

requirement [of 37 CFR § 1.192(c)(7)], the Board is free to select a single claim from each group of claims subject to a common ground of rejection as representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim.").

We agree with appellant, however, that the rejection fails to show disclosure or suggestion of the relationships required by dependent claims 4, 6, and 7. The statement of the rejection (Answer at 6) appears deficient on its face, in alleging inherency or obviousness without showing inherent disclosure or suggestion of the claimed subject matter in Tuzhilin. The expansion on the position (Answer at 13-14) indicates, at best, that Tuzhilin may collect data that could be used in the claimed relationships. However, the claims require that the implicit rating is generated in accordance with the particular relationships. Tuzhilin, on the other hand, discloses that the ratings are generated in accordance with fuzzy aggregated rules. While the claimed relationships might appear obvious to the examiner in hindsight, the evidence supplied is not sufficient to support the asserted conclusion. The allocation of burdens requires that the USPTO produce the factual basis for its rejection of an application under 35 U.S.C. § § 102 and 103. In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984) (citing In re Warner, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967)).[1]

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[1] Upon return of the application to the examiner's jurisdiction, the examiner should consider a rejection of claim 4 for indefiniteness under 35 U.S.C. § 112, second paragraph. The written description

In summary, we sustain the § 103 rejection of claims 1-3, 5, and 8-20, but not

the rejection of claims 4, 6, and 7.

CONCLUSION

The rejection of claims 1-3, 5, and 8-20 under 35 U.S.C. § 103 as being

unpatentable over Kloba and Tuzhilin is affirmed. The rejection of claims 4, 6, and 7

under 35 U.S.C. § 103 as being unpatentable over Kloba and Tuzhilin is reversed.

The examiner's decision in rejecting claims 1-20 is thus affirmed-in-part.

(spec. at 8, ll. 15-19) suggests that a rating measure for an item (a song) may be the number of interactions with the item since the item was acquired with respect to the number of total interactions with similar items since the item was acquired. Claim 4, however, appears to recite that a rating is generated in accordance with the number of interactions with an item since the item was acquired with respect to the number of total interactions with that item since the item was acquired. It is unknown what difference may lie between the "number of interactions" and the "number of total interactions" with respect to the same item over the same period of time. If there is no difference -- if the numbers are equal -- then the rating of any and all items would be unity.

No time period for taking any subsequent action in connection with this appeal

may be extended under 37 CFR § 1.136(a). See 37 CFR § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

JOSEPH F. RUGGIERO
Administrative Patent Judge

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JOSEPH L. DIXON)   APPEALS
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HOWARD B. BLANKENSHIP)
Administrative Patent Judge)

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